

CURRENT CLAIMS

A copy of the claims is provided below for the convenience of the Examiner. The claims are not amended.

1. (Original) A radio frequency (RF) transceiver comprising:
a radio frequency (RF) modem section comprising:
receive path circuitry capable of receiving and down-converting an incoming RF signal to thereby produce an incoming baseband signal; and
transmit path circuitry capable of receiving and up-converting an outgoing baseband signal to thereby produce an outgoing RF signal;
a baseband section comprising baseband circuitry capable of receiving and processing said incoming baseband signal and capable of generating said outgoing baseband signal; and
a power-saving apparatus capable of determining that said baseband section is idle and, in response to said determination, reducing a power supply voltage providing power to said baseband section.
2. (Original) The RF transceiver as set forth in Claim 1 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said receive path circuitry.

3. (Original) The RF transceiver as set forth in Claim 2 wherein said power-saving apparatus comprises a timer and a switch operable to switch said power supply voltage on and off to said receive path circuitry.

4. (Original) The RF transceiver as set forth in Claim 3 wherein said power-saving apparatus is further capable of monitoring said incoming baseband signal during a time period when said power supply voltage is switched on to said receive path circuitry and determining if said incoming baseband signal is directed to said RF transceiver.

5. (Original) The RF transceiver as set forth in Claim 4 wherein said power-saving apparatus, in response to a determination that said incoming baseband signal is directed to said RF transceiver, increases said power supply voltage providing power to said baseband section.

6. (Original) The RF transceiver as set forth in Claim 4 wherein said power-saving apparatus, in response to a determination that said incoming baseband signal is directed to said RF transceiver, increases said power supply voltage providing power to said receive path circuitry.

7. (Original) The RF transceiver as set forth in Claim 6 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said transmit path circuitry.

8. (Original) The RF transceiver as set forth in Claim 7 wherein said power-saving apparatus, in response to a determination that said incoming baseband signal is directed to said RF transceiver, increases said power supply voltage providing power to said transmit path circuitry.

9. (Original) The RF transceiver as set forth in Claim 1 wherein said power-saving apparatus is further capable of reducing a power supply voltage providing power to said transmit path circuitry.

10. (Original) The RF transceiver as set forth in Claim 9 wherein said power-saving apparatus is further capable of monitoring said incoming baseband signal and determining if said incoming baseband signal is directed to said RF transceiver.

11. (Original) The RF transceiver as set forth in Claim 10 wherein said power-saving apparatus, in response to a determination that said incoming baseband signal is directed to said RF transceiver, increases said power supply voltage providing power to said transmit path circuitry.

12. (Original) The RF transceiver as set forth in Claim 11 wherein said power-saving apparatus, in response to said determination that said incoming baseband signal is directed to said RF transceiver, increases said power supply voltage providing power to said baseband section.

13. (Original) A method of reducing power consumption in a radio frequency transceiver comprising: 1) receive path circuitry for receiving and down-converting an incoming RF signal to produce an incoming baseband signal; 2) transmit path circuitry for receiving and up-converting an outgoing baseband signal to produce an outgoing RF signal; and 3) a baseband section comprising baseband circuitry for receiving and processing the incoming baseband signal and generating the outgoing baseband signal, the method comprising the steps of:

determining that the baseband section is idle; and

in response to the determination that the baseband section is idle, reducing a power supply voltage providing power to the baseband section.

14. (Original) The method as set forth in Claim 13 further comprising the step of reducing a power supply voltage providing power to the receive path circuitry.

15. (Original) The method as set forth in Claim 14 further comprising the step of switching the power supply voltage on and off to the receive path circuitry.

16. (Original) The method as set forth in Claim 15 further comprising the steps of:

monitoring the incoming baseband signal during a time period when the power supply voltage is switched on to the receive path circuitry; and

determining if the incoming baseband signal is directed to the RF transceiver.

17. (Original) The method as set forth in Claim 16 further comprising the step, in response to a determination that the incoming baseband signal is directed to the RF transceiver, of increasing the power supply voltage providing power to the baseband section.

18. (Original) The method as set forth in Claim 16 further comprising the step, in response to a determination that the incoming baseband signal is directed to the RF transceiver, of increasing the power supply voltage providing power to the receive path circuitry.

19. (Original) The method as set forth in Claim 18 further comprising the step of reducing a power supply voltage providing power to the transmit path circuitry.

20. (Original) The method as set forth in Claim 19 further comprising the steps, in response to a determination that the incoming baseband signal is directed to the RF transceiver, of increasing the power supply voltage providing power to the transmit path circuitry.

21. (Original) The method as set forth in Claim 13 further comprising the step of reducing a power supply voltage providing power to the transmit path circuitry.

22. (Original) The method as set forth in Claim 21 further comprising the steps of monitoring the incoming baseband signal and determining if the incoming baseband signal is directed to the RF transceiver.

23. (Original) The method as set forth in Claim 22 further comprising the step, in response to a determination that the incoming baseband signal is directed to the RF transceiver, of increasing the power supply voltage providing power to the transmit path circuitry.

24. (Original) The method as set forth in Claim 23 further comprising the step, in response to the determination that the incoming baseband signal is directed to the RF transceiver, of increasing the power supply voltage providing power to the baseband section.